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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,762	06/15/2001	Tomas Mecklin	027566-025	7539

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EXAMINER

HAN, CLEMENCE S

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/787,762	MECKLIN ET AL.	
	Examiner	Art Unit	
	Clemence Han	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/15/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. An initialed and dated copy of Applicant's IDS form 1449, received on June 15, 2001 is attached to the instant Office action.

Specification

3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
4. The disclosure is objected to because of the following informalities: There is a typographical error in page 9 line 18, "gateway devices 12". The reference number 12 was used for Internet Access Server (page 9 line 12) and the reference number 10 was used for gateway device (page 9 line 13). Appropriate correction is required.
5. The disclosure is objected to because of the following informalities: In the table 1 on the page 12, there are two instances of wrong expression, "2=>n=>272". Appropriate correction is required.

Claim Objections

6. Claim 22 is objected to because of the following informalities: Acronyms, (For example, "ISUP" and "SIP"), were used without their definition. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 3-6, 9-13, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 3 recites the limitation "the first gateway" in line 2. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 4 recites the limitation "the formatted information" in line 2. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 4 recites the limitation "the first gateway" in line 2. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 5 recites the limitation "the formatted information" in line 2. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 5 recites the limitation "the second gateway" in line 2. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 5 recites the limitation "the original signaling information" in line 3. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 6 recites the limitation "the recovered signaling information" in line 2. There is insufficient antecedent basis for this limitation in the claim.

16. Claim 9 recites the limitation "the user call information" in line 2. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 10 recites the limitation "the signaling network interfaces" in line 4. There is insufficient antecedent basis for this limitation in the claim.

18. Claim 13 recites the limitation "the first transmission network" in line 3. There is insufficient antecedent basis for this limitation in the claim.

19. Claim 22 recites the limitation "the ISUP" in line 2. There is insufficient antecedent basis for this limitation in the claim.

20. Claim 22 recites the limitation "the SIP" in line 3. There is insufficient antecedent basis for this limitation in the claim.

21. Claim 22 recites the limitation "the SS7" in line 4. There is insufficient antecedent basis for this limitation in the claim.

22. Regarding claim 23, the phrase "may be" in line 2 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

24. Claim 1-18 and 21-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Curry et al. (US Patent 6,625,170).

Regarding claim 1, Curry teaches a method of transmitting signaling information between signaling points of a telecommunications system, the method comprising transmitting signaling information between said signaling points 102, 128 via Internet Protocol (IP) based network 136, (Column 10 Line 13-15, Column 21 Line 12-53).

Regarding claim 2, Curry teaches transmitting signaling information from a first signaling point 102 to a first gateway 130, (Column 21 Line 14-25).

Regarding claim 3, Curry teaches formatting the signaling information at the first gateway 130 into a format suitable for transmission over an IP network 136, (Column 21 Line 25-30).

Regarding claim 4, Curry teaches transmitting the formatted information from the first gateway 130 to a second gateway 140 over an IP network 136 (Column 21 Line 29-34).

Regarding claim 5, Curry teaches receiving the formatted information at the second gateway 140, (Column 21 Line 30-34) and recovering therefrom the original signaling information (Column 21 Line 35-36).

Regarding claim 6, Curry teaches transmitting the recovered signaling information to a second signaling point 128, (Column 21 Line 35-42).

Regarding claim 7, Curry teaches the signaling information associated with a subscriber-to-subscriber voice or data traffic channel carried by a first transmission network (Column 21 Line 50-53).

Regarding claim 8, Curry teaches said first transmission network as a circuit switched network (Column 9 Line 20-21, Column 21 Line 50-53).

Regarding claim 9, Curry teaches said signaling points 102, 128 between which the user call information and the signaling information is transmitted as switching points 104, 146 of the telecommunication system.

Regarding claim 10, Curry teaches transmitting signaling information between said signaling points in part via a packet switched signaling network different from said IP based network (Column 21 Line 17-20), signaling information being converted from one format to another at the signaling network interfaces 130, (Column 21 Line 25-30).

Regarding claim 11, Curry teaches said packet switched signaling network as Signaling System No. 7 (SS7) based network (Column 21 Line 17-20).

Regarding claim 12, Curry teaches transmitting signaling information between a group of locally arranged signaling points 102, 106, 114 using an SS7 network (Column 21 Line 17-20) whilst transmitting signaling information intended for signaling points outside the local area to a gateway device 130 which provides an interface between the SS7 network and the IP network 136, (Column 21 Line 20-25).

Regarding claim 13, Curry teaches the signaling information transmitted through the IP network comprising signaling information associated with call set-up and call termination in the first transmission network of the telecommunications system (Column 14 Line 15-17).

Regarding claim 14, Curry teaches an apparatus for transmitting signaling information between signaling points of a telecommunications system, the

apparatus comprising: an Internet Protocol (IP) based network 136 forming at least part of a transmission link between said signaling points 102, 128 ; and means for transmitting signaling information between said signaling points via the IP based network (Column 10 Line 13-15, Column 21 Line 12-53).

Regarding claim 15, Curry teaches a gateway device 130 coupled to a signaling point 102 and also to an Internet Protocol (IP) based network 136, wherein the gateway device 130 is arranged to receive signaling information from said signaling point 102 coupled thereto (Column 21 Line 14-25) and to convert that information into a format suitable for transmission over the IP network 136, (Column 21 Line 25-30) and to perform a reverse conversion for signaling information from the IP network 136, (Column 21 Line 35-36).

Regarding claim 16, Curry teaches the gateway device as a Signaling System No.7 (SS7)/Internet Protocol (IP) gateway device 130.

Regarding claim 17, Curry teaches the gateway device 130 as a standalone device (Figure 12).

Regarding claim 18, Curry teaches the gateway device 130 integrated into respective signaling point 102, (Column 22 Line 5-6, Figure 15).

Regarding claim 21, Curry teaches the gateway device 130 coupled to respective signaling point 102 via PCM or TDMA links (Column 17 Line 1-2, 12-13).

Regarding claim 22, Curry teaches the gateway device 130 provided with conversion means for converting (Column 21 Line 25-30) between: the ISUP messaging format and the SIP messaging format; an H.323 messaging format and the SS7 call set-up format; ISUP and a network access server control protocol; or between ISUP (Column 14 Line 15-16) and a voice-over-IP control protocol (Column 20 Line 18-19).

Regarding claim 23, Curry teaches the gateway device 130 provided with an interface for tunneling SS7 application part messages (Column 14 Line 22-24) over IP (Column 21 Line 25-34).

Regarding claim 24, Curry teaches the gateway device arranged to determine the IP routing address for a received message or series of messages from one or more of: the Signaling Link Selection + Service Information Octet; Subsystem number; and Global Title Translation (Column 15 Line 55-57).

Regarding claim 25, Curry teaches signaling information associated with a subscriber-to-subscriber voice or data traffic channel carried by a first transmission network (Column 21 Line 50-53).

Regarding claim 26, Curry teaches a method of communicating voice and other user information between a pair of end users 100, 122, a first of the end users 100 having a circuit switched connection to a telecommunications network 102, 106, 118 and the second of the end users 122 having a packet switched connection to an IP network 136, the method comprising exchanging signaling information between the telecommunications network and the IP network via a gateway 130 device arranged to convert the signaling data between a voice-over-IP format and a SS7 format (Column 21 Line 25-30).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claim 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. in view of Regnier (US Patent 6,345,047).

Regarding claim 19, Curry teaches a gateway device 130 coupled to a signaling point 102 and also to an Internet Protocol (IP) based network 136, wherein the gateway device 130 is arranged to receive signaling information from said signaling point 102 coupled thereto (Column 21 Line 14-25) and to convert

that information into a format suitable for transmission over the IP network 136, (Column 21 Line 25-30) and to perform a reverse conversion for signaling information from the IP network 136, (Column 21 Line 35-36). Curry, however, does not teach the gateway device coupled to the IP network via respective Internet Access Server (IAS). Regnier teaches the gateway device 70 coupled to the IP network 90 via respective Internet Access Server (IAS) 80. It would have been obvious to one skilled in the art to modify Curry to use IAS to couple the gateway device to the IP network as taught by Regnier in order to determine if the user already has an IP session (Column 1 Line 64-67).

Regarding claim 20, Curry teaches a gateway device 130 coupled to a signaling point 102 and also to an Internet Protocol (IP) based network 136, wherein the gateway device 130 is arranged to receive signaling information from said signaling point 102 coupled thereto (Column 21 Line 14-25) and to convert that information into a format suitable for transmission over the IP network 136, (Column 21 Line 25-30) and to perform a reverse conversion for signaling information from the IP network 136, (Column 21 Line 35-36). Curry, however, does not teach the gateway device coupled to respective Internet Access Server (IAS) via packet switched data links. Regnier teaches the gateway device 70 coupled to respective Internet Access Server (IAS) 80 via packet switched data

links (Column 1 Line 50-53). It would have been obvious to one skilled in the art to modify Curry to use IAS to couple the gateway device to the IP network as taught by Regnier in order to determine if the user already has an IP session (Column 1 Line 64-67).

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to the signaling in telecommunication in general.

U.S. Patent 6,215,790 to Voit et al.

U.S. Patent 5,966,431 to Reiman et al.

U.S. Patent 6,011,803 to Bicknell et al.

U.S. Patent 5,793,771 to Darland et al.


U.S. Patent 6,404,870 to Kia et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clemence Han
Examiner
Art Unit 2665



ALPUS H. HSU
PRIMARY EXAMINER